

Appl. No. 10/043,653
Amdt. dated 11/21/2003
Reply to Office Action of August 21, 2003

PATENT

REMARKS/ARGUMENTS

This is Applicant's response to the first Office Action dated August 21, 2003. Applicant respectfully requests review and reconsideration of the Application in view of the foregoing amendments to the claims and the following remarks.

The Examiner rejected all of the pending claims 1-20 for obviousness under 35 U.S.C. §103(a) based on the combined teachings of Moore U.S. Pat. No. 3,433,421 ("Moore '421") in view of Miller U.S. Pat. No. 4,497,581 ("Miller '581"). Applicant has amended claims 1-5, 9, and 13-17, and has cancelled the remaining claims. Applicant respectfully submits that the amended claims are novel and unobvious with respect to the Moore '421 and Miller '581 references alone and combined.

As described in the specification, Applicant's invention is directed to agitating a fluid in a container in such a manner that the fluid is well agitated and mixed, and at the same time the formation of air bubbles is inhibited. Fluids in which such controlled agitation is desirable include certain fine paints and polishes, for example. See Specification p. 1, lines 17-28; p. 2, lines 5-19. As described, the invention provides superior results by limiting the driving force of the agitation and by applying a driving force having reciprocal and rotational components to induce a vortex-like agitation of the fluid. See Specification p. 2, line 31 - p. 3, line 3; p. 4, lines 14-19; p. 11, lines 9-18. Both of these characteristic features are recited in each of the amended claims.

Neither Moore '421 nor Miller '581 describes or suggests the unique combination of structural and operational components recited in the claims, whereby the agitation force is specifically limited and coupled to a fluid container in such a manner that a vortex-like agitation is applied to the fluid in order to thoroughly agitate and mix the fluid while at the same time inhibiting the formation of air bubbles. To the contrary, Moore '421 describes an apparatus that operates not to agitate and mix a fluid, but as a vibratory mill to grind and crush solid matter. Spherical or cylindrical "grinding media" are included in the container to be agitated, along with the solid material to be ground down. Moore '421 gives no consideration to limiting the force or magnitude of the agitation, or to coupling the agitation force to the drums containing the solid

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material in such a way as to provide a vortex-like agitation. Indeed, in order to crush solid media, persons skilled in the art would understand that Moore '421 must apply a significant amount of agitation force to the drums in order to accomplish the goal. Certainly, the resulting introduction of air bubbles would be no concern since Moore '421 was concerned with a solid material and not a fluid to be mixed.

Similarly, Miller '581 is a typical large scale motor-driven paint shaker which operates to "rapidly mix and agitate" the paint in a large bucket by applying intense shear forces to the paint. See Col. 5, line 65 - col. 6, line 3; col. 7, lines 1, 9-16. Indeed, Miller '581 mentions that the apparatus and its operation are also applicable to evenly disperse solids in containing liquid vehicles "or other solids or powders." See Col. 7, lines 12-16. It is clear that the focus of Miller '581 is reduction of the agitation time, and that this is accomplished through the application of severe agitation forces, with no concern for inhibiting bubble formation. Nor does Miller '581 disclose or suggest inducing a vortex-like agitation of the fluid in conjunction with limiting the agitation to obtain excellent mixing while inhibiting air bubble formation.

Obviously, since neither Moore '421 nor Miller '581 alone discloses or suggests the novel characteristics of the claimed invention, the combination also does not. Moreover, simply combining the motor drive of Miller '581 with the apparatus of Moore '421 and substituting a fluid for the solid material of Moore '421 does not inherently provide the characteristic benefits of the claimed invention. For example, persons skilled in the art relying on the teachings of Moore '421 and Miller '581 would be led to apply intense agitation force to the fluid to be agitated and mixed. The application of such intense force, however, would not result in vortex-like agitation characteristic of the invention and would most certainly result in the promotion rather than the inhibition of air bubbles. Making the necessary adjustments in apparatus and operation to meet the characteristics of the claimed invention is not described or suggested by either reference, and is only apparent from the present applicant's own teaching. Obviously employing the Applicant's own teaching to find obviousness under §103(a) is improper and prohibited.

For all of these reasons, the Applicant respectfully submits that the pending claims 1-5, 9, and 13-17 recite subject matter that is patentable over the prior art of record, and

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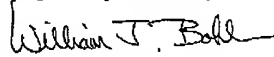
that the claims are in proper form for allowance. An early notice to that effect is earnestly solicited.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes an interview would advance the prosecution of the Application, the Examiner is invited to contact Applicant's attorney at the Examiner's convenience.

Respectfully submitted,



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